

REMARKS

By the foregoing amendments the Substitute Specification has been amended on page 3 to note that the designation "ppm" refers to parts per million, claims 1, 5, 6, 9, 10 and 12-16 have also been amended. Thus, claims 1-16 are in the application.

Applicant gratefully acknowledges the courtesy personal interview granted on February 18, 2009 by Supervisory Patent Examiner Callie E. Shosho and Examiner John Freeman to Applicant's undersigned attorney. Prior to the interview the undersigned faxed proposed amendments to claim 1 for discussion during the interview. As indicated in the Interview Summary, Form PTOL-413, dated February 18, 2009, arguments were submitted by the undersigned during the interview that the combination of ingredients of the claimed laminated article of the present invention provides for criticalities not found in the prior art. Possible 35 U.S.C. §112 issues were discussed for dependent claims during the interview. A discussion of the applied references relied upon in the rejections of the application claims in the outstanding Office Action also took place.

The Examiners made several helpful suggestions for rewording the expressions in the claims referring to the respective layers of the laminated article for the purpose of using a single reference, instead of two for the various layers. This has been done by the above amendments to the claims. Changes have also been made in the dependent claims where necessary for consistency with the amendments to the independent claim, claim 1. The Examiners indicated during the personal interview that it was necessary to file a Request for Continued Examination in the application in order to gain consideration on the merits of the amended claims. No agreement was

reached during the interview. Accordingly, filed herewith is a Request for Continued Examination along with a Petition for Extension of Time to permit the timely filing of this Amendment and the Request for Continued Examination within the first month extension of time for responding to the Office Action of November 17, 2008.

Further, as discussed during the personal interview, by the amendments to claim 1, the polyamide resin (B) is now recited as being selected from at least one of nylon 6, nylon 66 and nylon 6/66. Support for these limitations is found in the specification, see for example page 15, lines 6-10 of the Substitute Specification.

Claim 1 has been further amended by the above amendments to recite that the laminated article has a layer composition selected from the group consisting of at least b/a/b, b/a/c, b/a/c1/c2, b/c1/a/c1/c2 and b/a/b/c. Support for these limitations concerning the layer composition of the laminated article is present in the specification, see page 16, line 30 through page 17, line 10 of the Substitute Specification, for example. In connection with this change, claim 1 has been further amended to recite that the layer set as a and the layer set as b are adjacent to each other directly or via at least one of an adhesive resin layer and another layer set as c (c1, c2,...) from the group consisting of polypropylene, polyethylene and ethylene-propylene copolymer. Support for these limitations is found in the specification. See for example page 15, line 26 through page 16, line 7 of the Substitute Specification.

Claims 1, 2, 4-6 and 11-16 were rejected in the outstanding Office Action under 35 U.S.C. §103(a) as being unpatentable over Miharuru, et al.

(WO 96/18681) in view of Ninomiya, et al. (US 6,184,288) and Saxton (US 5,032,632) as stated on pages 2-4 of the Office Action.

Claims 3 and 7-10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Miharu, et al. in view of Ninomiya and Saxton as applied in the rejection of claims 1, 2, 4-6 and 11-16 and further in view of Tachibana, et al. (US 6,169,161) as stated on pages 4-6 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and the remarks made during the aforementioned personal interview as summarized below.

By the amendments to claim 1 made by the Amendment of July 29, 2008, the laminated article of the present invention was defined as a blend of EVOH copolymer (ethylene-vinyl acetate copolymer) and PA (polyamide) resin with specified blending ratio in order to distinguish the present invention from Ninomiya, et al. However, Applicant emphasizes that an important technical feature of the present invention apart from the said blending ratio is using alkaline metal salt, alkaline earth metal salt, phosphorous compound and hindered phenol antioxidant in the recited blending ratio and quantity. Applicant again notes that the EVOH resin which contains comonomers of amide of Ninomiya and the compound of EVOH resin and PA resin of the present invention are quite different.

The polymer of Ninomiya et al. is obtained by polymerization (that is, the obtained polymer has amide group in its side chain). On the other hand, the compound of the present invention is obtained by blending a polymer which has amide group in its main chain. In this regard, by the above

amendments claim 1 has been amended to positively recite that the polyamide resin (B) is selected from at least one of nylon 6, nylon 66 and nylon 6/66, which have amide group in their main chain. In this respect, Applicant notes it is difficult to polymerize monomers which have amide groups in their main chain with EVOH, and it is impossible to polymerize said monomers substantially. In order to polymerize monomers which have amide group, it is possible by using monomers which have amide group in their side chain such as acrylamides. That is, there are no teachings or suggestions of using nylon 6, nylon 66 and nylon 6/66 in Ninomiya et al. to obtain the construction of the present invention. In Ninomiya, et al., "amides" are described as monomers which are polymerizable with EVOH. However, they are predictable from their chemical property that "amides" described in Ninomiya, et al. are acrylamides which have amide group in their side chain. There are no descriptions of nylons which have amide group in their main chain.

The newly applied primary reference to Miharu, et al. uses the specified composition which includes EVOH resin, PA resin and a large amount of ionomer (10-40 parts by weight). On the other hand, the present invention uses saponified product of an ethylene-vinyl acetate copolymer (that is, the copolymer is normal EVOH and apparently different from Miharu). Further, Miharu, et al. do not disclose using compounding ingredients such as alkaline metal salt, alkaline earth metal salt, phosphorous compound and hindered phenol antioxidant as in the present invention as recited in the claims as amended. In this respect, the present invention strictly defines the said compounding ingredients and their blending ratio in compositions of

EVOH (A) and nylons (B) to obtain the laminated article of the invention which has great adhesiveness and is excellent in appearance after a retort treatment, see page 1 of the Substitute Specification, lines 12-18 and the amount ratio (M1/M2) of Example 1 and Comparative Examples 1 and 2 of Applicant's specification. Further, there are no disclosures in Miharuru et al. of a laminated article having a layer composition as in the present invention as recited in claim 1 as amended.

Applicant further notes that in the present invention, nylons (B) and EVOH (A) are melt-kneaded and both resins are reacted moderately. As a result, nylons (B) can keep the crystalline construction of EVOH (A) and specific effects of the present invention (such as excellent in appearance, delamination resistance, gas barrier property, excellent in long-run processability, performance of preventing odor and coloring in the like). In order to react both nylons (B) and EVOH (A) moderately, it is necessary to decomposes EVOH (A) for it to easily react with nylons (B). However, when the said decomposition is carried too much, the reaction is carried too much and the said excellent effect is never obtained. So, it is important to adjust the reaction by defining the said compounding ingredients in accordance with the present invention. That is, it is necessary to include sodium salt (M1) and a bivalent metal salt (M2) into EVOH in adequate blending ratio previously, additionally to include phosphorous compound and hindered phenol antioxidant in adequate amount to decomposes EVOH moderately. As a result, the reaction is carried out moderately.


In conclusion, Applicant respectfully submits that there are no teachings or suggestions in the applied references to obtain the construction

of the laminated article of the present invention as recited in the claims as amended, and it is respectfully submitted that it is impossible, not within 35 U.S.C. §103, to obtain the same when the person skilled in the art combines the inventions of the cited references. For these reasons, reconsideration and allowance of the claims as amended is requested.

A Petition for Extension of Time to permit the timely filing of this Amendment is filed herewith. A Request for Continued Examination is also filed in view of the indication during the aforementioned personal interview that same would be necessary for consideration of the amended claims.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (Case No. 512.46311X00) and please credit any excess fees to such deposit account.

Respectfully submitted,

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Attachments